

**Notice of Allowability**

Application No.

10/733,412

Applicant(s)

RAO, GOVIND

Examiner

Art Unit

David A. Redding

1744

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/29/05.
2. ☒ The allowed claim(s) is/are 1,3-17 and 19-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
David A Redding  
Primary Examiner  
Art Unit: 1744

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Previously Presented) A bioprocessing system, comprising:
  - (a) at least one bioreactor, wherein each bioreactor comprises a well housed in a multiple-well plate;
  - (b) at least two optical chemical sensors associated with each bioreactor, wherein the optical chemical sensors are located within each bioreactor;
  - (c) at least one excitation source corresponding to each optical chemical sensor; and
  - (d) at least one detector.
2. (Canceled).
3. (Previously Presented) The bioprocessing system of claim 1, wherein the optical chemical sensors are sensor patches positioned at the bottom of the well.

4. (Original) The bioprocessing system of claim 1, wherein each bioreactor is a cuvette.
5. (Original) The bioprocessing system of claim 4, wherein the optical chemical sensors are sensor patches affixed to at least one wall of the cuvette.
6. (Original) The bioprocessing system of claim 1, wherein each bioreactor is a culture vial housed within a receptacle of a multi-receptacle bioreactor platform.
7. (Original) The bioprocessing system of claim 6, wherein the optical chemical sensors are sensor patches positioned at the bottom of the culture vial.
8. (Original) The bioprocessing system of claim 7, wherein the excitation source is a light emitting diode.
9. (Original) The bioprocessing system of claim 8, wherein the detector is an integrated spectrometer and diode array.

10. (Original) The bioprocessing system of claim 1, further comprising a bioreactor platform containing at least one receptacle to house each bioreactor.

11. (Original) The bioprocessing system of claim 10, further comprising a sub-platform, wherein the bioreactor platform is positioned on top of the sub-platform.

12. (Original) The bioprocessing system of claim 11, further comprising an agitator, wherein the sub-platform is positioned on top of the agitator.

13. (Original) The bioprocessing system of claim 12, further comprising a positioning table, wherein the positioning table is positioned below the agitator such that the positioning table is capable of moving the bioreactor in an x-y or x-y-z plane to a predetermined position.

14. (Original) The bioprocessing system of claim 1 or 13, further comprising a data acquisition and control system connected to components of the bioprocessing system via cabling means.

15. (Previously Presented) A bioprocessing system, comprising:
  - at least one bioreactor, wherein each bioreactor comprises a cuvette;
  - at least two optical chemical sensors associated with each bioreactor, wherein the optical chemical sensors are located within each bioreactor;
  - at least one excitation source corresponding to each optical chemical sensor; and
  - at least one detector.
16. (Previously Presented) A bioprocessing system, comprising:
  - at least one bioreactor, wherein each bioreactor comprises a culture vial housed within a receptacle of a multi-receptacle bioreactor platform;
  - at least two optical chemical sensors associated with each bioreactor, wherein the optical chemical sensors are located within each bioreactor;
  - at least one excitation source corresponding to each optical chemical sensor; and
  - at least one detector.
17. (Canceled).
18. (Previously Presented) A bioprocessing system, comprising:
  - at least one bioreactor;

at least two optical chemical sensors associated with each bioreactor, wherein the optical chemical sensors are located within each bioreactor;  
at least one excitation source corresponding to each optical chemical sensor;  
at least one detector; and  
at least one dispenser positioned to selectively dispense a predetermined substance into the bioreactor.

19. (Previously Presented) The bioprocessing system of claim 18, wherein the dispenser comprises a liquid dispenser.

20. (Previously Presented) The bioprocessing system of claim 18, wherein the dispenser comprises a gas dispenser.

21. (Previously Presented) The bioprocessing system of claim 18, wherein the predetermined substance comprises an acid, a base or a nutrient.

**REMARKS**

Claims 1, 3-16 and 18-21 are pending in the present application. By this Amendment, claim 17 is canceled. Reconsideration in view of the above amendments and the following Remarks is respectfully requested.

Entry of the amended claims is proper under 37 C.F.R. §1.116 since the amendments: (1) place the application in condition for allowance (for the reasons discussed herein); (2) do not raise any new issues requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution without incorporating additional subject matter); (3) satisfy a requirement of form asserted in the previous Office Action; and/or (4) place the application in better form for appeal (if necessary). Entry is thus requested.

Applicant appreciates the Office Action's indication that claims 1 and 3-21 are allowable.

The Office Action rejects claim 17 under 35 U.S.C. § 103(a) as anticipated by U.S. Patent No. 5,266,486 to Fraatz et al. (hereinafter "Fraatz"). Claim 17 has been canceled and thus this rejection is now moot. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

Serial No. 10/733,412  
Reply to Office Action of June 29, 2005


Docket No. UMBC-0004A

### CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that this application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, René A. Vázquez, Esq., at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
FLESHNER & KIM, LLP

A handwritten signature in black ink, appearing to read 'René A. Vázquez', is written over the printed name and registration number.

René A. Vázquez, Esq.  
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Date: **NOVEMBER 29, 2005**

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